

## ABSTRACT

An apparatus is provided for measuring deformation of a surface of a pipe. The apparatus has a central portion to which a detector section is mounted. At each side, guides are connected to the housing via arms. The housing has a platform below which an inverted U-shaped section is provided, with the platform forming the base of the U. At the rear of this section a wheel is rotatably mounted on an axle. Forward of this, and also within the U-shaped section is mounted a further U-shaped section. This is pivotally mounted at its rear end by means of a pin such that its forward end is free to move vertically. The forward end has mounted within it a further wheel on an axle. Projecting upwards from the second U-shaped section is a rod which passes through a hole in platform. Around the lower portion of the rod is provided a spring which biases the detector downwards and away from the platform. The rod moves vertically with the wheel as it passes over bumps in the pipe. The rod is connected to a potentiometer which varies an output voltage. By correlating the variations in the output voltage with the distance moved by the detector, deformations in the pipe may be mapped.